

NAME AND ID:

CSE 173, Quiz 3

MARKS OBTAINED:

SET C

### Question 1: 12 Points

Use mathematical induction to show that for any positive integer  $n$ ,  $6^n - 1$  is divisible by 5.

or,

Use mathematical induction to show that  $1 + 2^1 + 2^2 + 2^3 + \dots + 2^n = 2^{n+1} - 1$

## Question 2: 8 Points

Find  $\sum_{i=1}^5 (2 + 3i) = ?$